



**Connecticut River Atlantic Salmon Commission  
Turners Falls, Massachusetts  
Meeting Minutes  
January 11, 2011**

**Agenda Items:**

**1. Determination of Quorum, Approval of Today's Agenda & Minutes of the June 22, 2010 Meeting, new VTFW Commissioner appointment, and NMFS Commissioner status.**

Vice Chair Mr. Wayne MacCallum called the meeting to order at 10:16 a.m. and adjourned at 12:25 p.m.

Mr. MacCallum opened the meeting, and the Commissioners introduce themselves followed by the general audience.

- Mr. Shelton then asked the Mr. MacCallum if there would be a vote for new officers today given appointment of a new VTFW Commissioner and the resignation of Wayne Laroche (had been CRASC Chair).
- Mr. MacCallum responded there would be no vote today. It is his intention to have the agency directors (Commissioners) present for such a vote, most of whom were not present today but rather their Alternates.

No changes to the agenda were made, and the minutes of the last CRASC meeting on June 22, 2010 were reviewed. A motion to accept the minutes from that meeting was made by Mr. Gephard, seconded Mr. Decker, all were in favor.

- Mr. Palmer noted that VTFW had a new Commissioner, Patrick Berry, effective January 6<sup>th</sup> and Mr. Berry is coming up to speed on many pressing topics for his agency.
- Mr. Decker asked about Mr. Berry's background.
- Mr. Palmer noted that he was working at the Vermont Law School but his college degree is in Fish and Wildlife and he also worked as a fishing guide for many years. Mr. Palmer stated that Mr. Berry has many excellent past experiences for this position.
- Ms. Colligan stated that NOAA Fisheries had Chris Mantzaris retire effective January 1. Daniel Morris is the new Regional Administrator. She will advise CRASC of developments relative to NOAA Fisheries as they transition with roles on various commissions.
- Mr. MacCallum asked if this position is an appointed one.
- Ms. Colligan responded it was not and that Mr. Morris comes from the NOAA Corps and brings a great deal of good experience.

**2. Report of the Executive Assistant**

Mr. Sprankle provided a handout and reviewed his report, refer to attachment for details. Highlights of the report include a review of basin facility fishway and trap counts for 2010. It was noted that passage count totals for American shad and blueback herring were consistent with past years, the Atlantic salmon count was down, and the sea lamprey count was double that of 2009. He directed everyone to figures showing time series of fish counts for salmon, shad, herring and lamprey and made a point of noting that fishway count data are significantly

influenced by fishway facility and dam operational and structural changes, fish management changes, fish population changes, and varying environmental factors that must be considered when looking at these simple figures. Mr. Sprankle direct members to long-term population trend data for mixed stock assemblages for Atlantic salmon, American shad and river herring, all of which show consistent, substantial long-term declining trends over periods of 40 to 60 years, which must also be logically considered when discussing observed trends and status of our Connecticut River stocks.

- Dr. Geiger commented that the provided count data with additional larger geographical trend data was helpful
- Mr. Meyer questioned count numbers from the Spillway Ladder at Turners Falls given a fairly lengthy period of down time in 2010.
- Mr. Sprankle responded that counters break down and our work has many limitations, that the count data from Gatehouse was acceptable to the agencies
- Mr. Gephard responded that we strive for the best data, but in the end much of this information is an estimate, and discussed the visual counts at Holyoke fish lift as an example.
- Mr. MacCallum noted that we do the best we can with what we have to work with
- Mr. Stira replied that the most important count data at Turners Falls, what actually exited from the Gatehouse Ladder, thus bypassing the dam, was accurate with very minor days down (such as regional power outage period). He noted that he will work to improve the consistency of the operation of the Spillway counts.
- Dr. Castro-Santos commented that improved consistency in the fishway counter operations is worth further consideration.
- Dr. Geiger commented that fishway counts are an important tool along the East Coast and we should examine how other large programs are handling this activity. He requested that the Technical Committee investigate this in further detail and work to identify where improvements can be identified. The Commission agreed with this request.

Mr. Sprankle continued with updates on N. American salmon counts which generally show expected variability with previous years data. It was noted that the increase in Narraguagus River returns is likely driven by a 50,000 smolt release in 2008. Mr. Sprankle stated this and many other topics will be discussed at the U.S. Atlantic salmon Assessment Committee Meeting in March. The next item was the CRASC Checking account which has old members as having signature authority. Mr. Sprankle requested a motion to remove old members and replace with himself and Wayne MacCallum. Mr. MacCallum said he was going to postpone Commission action on this matter until the end of the meeting. Mr. Sprankle provide a list of correspondences to and from CRASC and drew their attention to the RI Division of Fisheries and Wildlife request for up to 2,000 shad from Holyoke Fish Lift to support their restoration programs. He noted the Technical Committee had approved this request as has been the practice with this annual request. Mr. MacCallum was unclear on the CRASC role of this matter versus the Commonwealth of Massachusetts role.

- Dr. Slater replied that it has been the practice of CRASC Tech to review and approve these request. The fine scale administrative details of this were not explicitly known, other than it is the practice of the respective fish and wildlife state agencies under their mandates and authorities to move and collect fish as they determine necessary for programs they oversee. Dr. Slater noted his Commonwealth's authority for such actions as did Mr. Gephard for Connecticut. He stated other entities are required a Scientific Collectors Permit which has not been required of RIDFW for this specific action. Dr. Slater was to further clarify some of these details and get back to Mr. MacCallum relative to CRASC authorities versus the Commonwealth's authorities.

- Dr. Geiger asked what other existing Compacts for multi-state program do in this regard. He requested that the Tech Committee check into this matter in regard to fish transfers.

Mr. Sprankle continued with an American shad update which noted the continued low levels of measured abundance along the East Coast at monitored locations. He reviewed ASMFC Amendment #3 requirement for approved Sustainability Plans in order to keep commercial or recreational fisheries open. These plans must be submitted by August 1, 2011. The CTDEP has submitted their plan. The MADMF has responsibility for this in Massachusetts and Mr. Sprankle and Dr. Slater have both been in contact with MADMF on this matter and will continue to pursue having this addressed. He then noted that NHFG must also address this topic and he has been in communication with NHFG staff on this.

- Dr. Geiger noted that MADMF Director Paul Diodati has hired a new biologist very recently that he believes will be working with shad and herring.
- Mr. Carpenter noted that Kevin Sullivan is the person at NHFG handling this. They have discussed this and based upon the status of shad in NH's portion of the river they believe having this fishery fall into a mandatory catch-and-release regulation without a Sustainability Plan is logical and acceptable to them.
- Mr. MacCallum noted the role of his Division vs. Division of Marine Fisheries on this topic and their authorities for management of this species and river herring.
- Dr. Slater noted that his Division does not have ASMFC representation and he is working with MADMF.
- Mr. Sprankle noted that his office identified and sampled on weekly basis 5 index site for juvenile shad and herring using CTDEP gear and methods, expanding this survey from the seven sites below Holyoke, from July through October. CTDEP had reported a relatively high juvenile index for shad and importantly blueback herring, which had been low in recent years.

Mr Sprankle continued with a brief review of a plan to try and conduct a whole river shad movement study that would determine rates of passage, timing, delays for both up and downstream moving shad and their fates. A detailed series of study objectives are a proposal that has been circulated to all state agencies, NGO's including TNC and power companies. He noted the plan calls for a minimum of 100 radio tagged released in the lower river with PIT tags and additional several hundred PIT tagged fish. Receivers are being gathered for use by Dr. Castro Santos who is co-PI on this and is handling technical aspects. Mr. Sprankle has agreed to perform up to 2 days of work during the study period (April-June) on this project. He has unconfirmed but intended commitments for funding from NHFG, USFWS Coordinator Office, USFWS Conte Refuge, MADMF, and TNC that are expected to meet required \$19,000 for 100 radio tags. Dr. Castro Santos is making excellent progress on securing a large number of receivers for use. Funds must be committed by end of January to ensure radio tags can be fabricated and much work remains. In addition Mr. Sprankle with Dr. Castro Santos submitted a NFWF proposal for 2012 as this must be a multi-year study.

- Dr. Geiger suggested contacting Dr. Ken Elowe the new Landscape Cooperative Coordinator for the Northeast Region of USFWS for potential funding support.
- Mr. MacCallum asked about the required receiver gear.
- Dr. Castro Santos replied that the equipment coming from the west coast would be valued at over \$100,000. There will be costs with upgrading and preparing this gear.

Mr. Sprankle continued with an update on river herring. He restated the continued low levels of abundance and long-term declining trend. He noted there were some localized improvements in herring runs.

- Mr. Gephard commented that coastal CT runs for alewife showed some good increases; however, increases for blueback herring were not noted. He stated CT is in the process of identifying blueback herring for its endangered species status.
- Mr. Sprankle noted that data for the CT river showed no change at fishways but anecdotal accounts suggested a strong run of bluebacks in 2010. He plans to continue with the net and transfer programs from Wethersfield Cove in 2011. He reviewed one objective of his spring herring population assessment, relative abundance measures among study reaches. He plans to complete analyses and produce a report and will continue this assessment work as a long-term program. He will be reading scales for age and spawning history at CTDEP for obtained alewife and blueback scales in 2010.
- Mr. Sprankle noted pending draft Atlantic Herring FMPs for both the New England Fishery Management Council and the Atlantic States Marine Fisheries Commission that are open for comments. The Plans seek to address issues of river herring bycatch through better monitoring and other measures to reduce any impacts. He requested a letter from the Commission to both entities on this matter.
- Mr. Gephard moved a letter be sent to support proposed conservation measures and obtain better data are logical and needed.
- Mr. Shelton seconded the motion
- Ms. Colligan stated her agreement.
- All were in favor and the letters were agreed to be drafted by Mr. Sprankle for review by the Commission via Mr. MacCallum.

Mr. Sprankle reviewed the status of his ongoing American eel population assessment that surveyed from Chicopee, MA to Montague, MA in 2010 on the mainstem river. Data had been entered but not yet analyzed.

Mr. Sprankle reviewed his temperature monitoring program, providing a GIS figure of logger locations. Data from fall of 2009 through fall of 2010 were downloaded at sites, and units redeployed. Data remain to be analyzed with an emphasis in the reach upstream and downstream of Vermont Yankee.

Mr. Sprankle reviewed the status of the CRASC Research Forum and reviewed a table of 12 presenters and their titles. The forum is scheduled for February 8, 2011 at USFWS in Hadley, MA.

Mr. Sprankle summarized Atlantic salmon classroom programs in the four basin states. A total of 182 schools in the basin participate. He recognized the Connecticut River Salmon Association for their extensive work on this in CT.

- Mr. Carroll provided some highlights to the group, stating 6,000 students in CT were involved and this number is increased by the involvement of parents and others to reach perhaps 10,000 people.
- Mr. MacCallum recognized and thanked Mr. Carroll and the CRSA for their work.

Mr. Sprankle reviewed a brief summary on Vermont Yankee with its multiple issues including tritium leak and clean-up. He stated the Environmental Advisory Committee he serves on with MA, VT, and NH biologists are frustrated at the continued delays addressing smolt studies and other fishery assessment measures this group has provided written comments on. The plant's operation has been determined by state law to not be operable beyond its March 2012 license. The NRC has not issued a determination on its operation beyond 2012.

- Ms. Colligan noted that in her experiences, if a state law requires state approval, and that is not in hand, the NRC will not allow it to operate. Typically NRC states all required licenses and approvals must be in place for operation.

It remains unclear what measures of legal recourse or action may be taken by Entergy.

Mr. Sprankle reported on the matter of the Northfield Mountain Pump Storage facility maintenance issues. He provided a timeline on when he was notified of the released sediment (July), actions taken and results from July - November. A total of 35-45,000 cubic yards of sediment from the upper reservoir were released primarily in the vicinity of the NMPS tailrace. EPA and MADEP were regulators developing and overseeing actions on this matter. The facility came back on line in late November. No fines were levied against the company.

### 3) Report of the Technical Committee Chair

Dr. Slater provided a handout report (fully incorporated below) that provided a summary of the November 15, 2010 Technical Committee meeting. The report provides update for each of the subcommittees as well as other updates. **Comments and discussions are denoted (○ comment) within the report sections.**

Mr. Sprankle introduced the new USFWS representative Dr. Bill Ardren at this November meeting.

#### Salmon Studies Subcommittee

A Salmon Studies meeting was held in late December.

Connecticut River salmon data from 2010 were reviewed and discussed. Of the 51 adult returns, 40 were taken for broodstock, 10 were radio tagged and released and one was observed in the lower Salmon River but not captured. Three of the returns were from hatchery smolt stocking and 48 were from fry stocking. All returns were two sea winter fish, except for one grilse (one sea winter) from fry stocking.

Six million fry were stocked, which is similar to the past four years but well below our goal of ten million, and over nine million stocked in three past years. Based on preliminary numbers, fry stocking levels will likely be even lower this spring. We are already stocking at light densities and any cuts will likely further impact future smolt production and adult returns. Detailed discussion of how to best manage any necessary fry stocking cuts was deferred until better estimates of fry availability are available.

Data analysis for the smolt production estimate for 2011 from Fall, 2010 index site electrofishing surveys has not been completed yet. The estimate rebounded in 2010 after two years of decline following thirteen years of apparently high and fairly stable production. The decline was likely due to reduced fry stocking and last year's increase was likely due to two good water years in a row which enhanced survival of stocked fry. The smolt estimate data analysis will be completed before the March U.S. Atlantic Salmon Assessment Committee Meeting. The estimate will likely be lower due to the warm dry summer.

First Light Power, in cooperation with others, has conducted a smolt estimate by marking smolts at Cabot Station and recapturing them at Holyoke since the early 1990s. Recapture rate is dependent on river flows so some years the estimates have wide confidence limits and other years no estimate is possible. These estimates have bounced around with no apparent trend until the past two years which are the highest in the time series. Last year's was the highest estimate yet

but had wide confidence intervals. However, even the lower 95% confidence interval is similar to the highest previous year's point estimate. It isn't known whether these high estimates are due to sampling issues caused by flow and/or reflect unusually high over winter survival and migration survival, which are not reflected in the index station estimates. First Light is planning on conducting the estimate again in 2011. We thank them for continuing to collect this important data.

Marine survival of both hatchery smolts and smolts originating from fry stocking in the Connecticut River remains a small fraction of that observed in the early 1990s and previously. The Connecticut River appears to follow the same general marine survival trends as Penobscot River hatchery smolts. While other factors are undoubtedly involved, marine survival appears to be the primary reason for our low return numbers.

Dr. Mike Bailey, who received his Ph. D at the University of Maine and is now working for the USFWS in Nashua, NH attended the meeting. Dr. Bailey gave four interesting presentations on his research in Maine, three of which related to fry stocking and one to smolt migration. Due to hatchery limitations in Maine, unfed fry are often stocked about five weeks earlier than the natural emergence time, which leads to concern about impacts on survival and genetics. Our ability to control incubation temperature at White River NFH gives us the ability to match stream conditions more closely to natural emergence time. We continue to have generally good freshwater survival rates from stocked fry based on our extensive annual index station sampling, so there is no apparent problem with fry timing here in the Connecticut basin. Dr. Bailey's smolt monitoring using acoustic telemetry in the Penobscot River showed very high migration mortality at both dams with inadequate downstream passage and in impoundments. We continue to be very interested in performing a similar study in the Connecticut River but costs are prohibitive.

#### **Fish Culture Subcommittee Update**

- Dr. Slater noted that in 2010 sea run spawning was set to occur on the earliest date in history, last week in September. As a result of skewed sex ratios, precocious parr use was a concern at this date. An effort to use the some hormone implants to synchronize adult maturation was used on parr with Dr. Steve McCormick's oversight. This appears to have worked well, evaluation on eye-up among treatments and controls continues.

#### Sea run egg production

Total of 26 SR fish spawned over three dates (Sept. 28, Oct 5 and 12).

Mating occurred using 9 SR males and 46 parr.

Estimated egg production is 182,000.

Eight fish spawned naturally on Sept. 28, this being the earliest spawn date to have occurred with program.

#### Kelt egg production

Total kelt production provided estimated 323,000 eggs from females kelts held at NANFH. Eggs were distributed to RCNSS and WRNFH, approximately 293,000 and 30,000, respectively. All matings of kelt eggs were accomplished with 87 parr at RCNSS. All matings at WRNFH were with domestic brood.

#### Domestic egg production

9.6 million eggs total

WRNFH – 6.1 mil, KSFH – 1.9 mil, RRSF – 1.6 mil

Survival to eyed egg has not been determined for all facilities at this time.

A meeting of the fish culture sub-committee will take place later this winter to review the previous spawning season and pre-plan for next fall. Some topics will include discussion of data collected from an assessment of parr milt production and hormone use in parr.

Approximately 1,400 surplus broodstock from WRNFH and 300 from Rodger Reed State Fish Hatchery were stocked after spawning into lakes and ponds in MA during early December.

- Dr. Slater asked Mr. Gephard if CTDEP about broodfish releases, Mr. Gephard responded they had stocked approximately 500-600 surplus brood from KSSFH.

### **Smolt Advisory Subcommittee**

Mr. Gephard noted that a Smolt Report had been provided after the June Tech Committee with updated figures. The Subcommittee had a meeting at DDENFH in July that had two outcomes, 1) baffles had been placed in raceways to distribute fish – that has been working well, continue and 2) decrease total number of smolts produced to increase fin quality. It was agreed to take this step. He noted that fin damage appears to occur in winter, could grade parr and fall stock them – whatever their fate, as the remainder benefit. This October's evaluation graded salmon <145mm which were clipped and stocked in the lower Farmington River. Mr. Gephard noted that fin condition was markedly better for 2011. Approximately 4,000 smolts are available at Berkshire NFH and 95,000 at DDENFH for spring 2011.

- Mr Gephard noted that we are getting smolt products from DDENFH thanks to the efforts of the hatchery staff responding to information from assessments at the hatchery.

### **Genetics Subcommittee Update**

Mr. Gephard noted there were two topics for this Subcommittee, 1) Genetic marking Program and 2) Broodstock Plan. Genetic mark data analyses is moving forward. NOAA funds have been received and used to purchase chemicals, the genetics position has been closed and candidates are being interviewed. A selection will be made. The SWG funding from VTDFW is still being processed but moving forward.

- Following the November Tech meeting the USFWS hired an individual for the genetics position and he started work in January. The current plan is to process 3,000 samples as outlined in the planning document put together by Jay McMenemy.

The Broodstock Plan had been stalled, Dr. Bartron was to work on it but has been on job details and busy on other tasks.

- Following the November Tech meeting Dr. Bartron worked on the Broodstock Plan and has it out for comments. She expects to set up a meeting later in the winter to work on completing this Plan.
  - Mr. Gephard stated he will work with Dr. Bartron to get the draft circulated to the subcommittee this winter and hopes to have it completed
  - Dr. Geiger noted that Dr. Bartron will be doing a 60d detail as part of a training program in late spring summer. He urged members to provide comments to her on the Broodstock Plan.

- Mr. MacCallum asked about the status of the genetic family marking program.
- Mr. McMenemy responded that the plan is to address the backlog of samples in the next three years, with the first year completed in December 2011 give the recent start date. The last marked adults are expected to return in 2015 (last stocked fry out this spring 2011).
- Dr. Geiger stated his appreciation to NOAA Fisheries for the purchasing of chemicals needed for lab work
- Ms. Colligan asked if there will be any issues with the chemicals that have been purchased relative to shelf life, etc. She asked for help in determining that and future needs. Mr. McMenemy was to get back to her with this information.
- Mr. MacCallum commented questioned that our fry production is about 55% of the target in the Plan, correct?
- Dr. Slater responded that was true and it was a function of limitations of hatcheries.

### **Fish Passage Subcommittee**

Mr. John Warner was not able to attend but did provide a handout (Attachment A) which should be referred to for complete details.

- Ms. Andrea Donlon commented that the fish ladder on the Manhan River (MA) is proceeding with snags. Various people commented on this project funded by USFWS, with City of Easthampton as owner and TU/volunteers as operators/monitor of fishway. Melissa Grader (USFWS-ES) is lead contact.

### **Shad Studies Subcommittee**

- Dr. Slater did not review the Shad Studies report as Mr. Sprankle had largely covered all the items in his report.

Mr. Sprankle provided a handout (Attachment B) and highlights from the review and discussion are provided here.

- A. Mr. Sprankle summarized highlights from the August 16<sup>th</sup> Shad Subcommittee meeting. These included, a decision to revise and update the CRASC Shad Management Plan, a review of the requirements of ASMFC Amendment 3 to the Shad Plan, the CTDEP Shad Sustainability Plan highlights, review of research and monitoring needs, status of the situation at Turners Falls and the decline in passage at Vernon Dam, and the planned continuation of river herring monitoring/assessment and restoration measures in 2011.
- B. Mr. Sprankle provided the Executive Summary for the CTDEP's "Report on the Future Sustainability of Connecticut River American Shad under Current In-River Commercial and Recreational Fisheries – July 2010," in his attachment. The report highlights the fact that in-river mortality attributed to both sources of fishing has declined dramatically and is not logically responsible for dramatic increases in estimated rates of mortality in the population in recent years, and reductions in run size as measured. Total mortality estimates (effects) are visible in the losses of older age classes and repeat spawners that are observed from samples largely taken at Holyoke Fish Lift. The report goes on to suggest that striped bass predation, at sea mortality (bycatch), and impacts from increased upstream passage rates, are possible factors that are assigned under "natural mortality"



not fishing mortality. The conclusion is a moratorium on the fishery would not result in rebuilding of the stock as a result.

- C. Rhode Island Division of Fish and Wildlife request for American shad from Holyoke Fish Lift. The Committee approved the RIDFW request for up to 2,000 shad in 2011 from HFL for use to support their restoration programs. It was noted that RIDFW is/will be required to transport one adult shad upstream of Vernon Dam for every shad taken out-of-basin (1:1 Policy).

#### **4) Other Business**

- Mr. Gephart stated that CTDEP had an urgent need to obtain a letter of support from the Commission for a grant proposal to address a funding shortfall with the proposed Rainbow Fish Lift.
- A motion to approve this letter was made, seconded and voted unanimously for signature under Mr. Sprankle's signature as it would reflect the support of the Commission and its vote.
- Dr. Geiger stated that UMASS Amherst and USFWS are planning a Fish Passage Engineering Symposium for June 27<sup>th</sup>-29<sup>th</sup>, with several others including Conte Lab researchers and other organizations. The request for abstracts is out.
- Mr. MacCallum noted that the Commission has a charge to the Technical Committee to review monitoring efforts and fishway counts at facilities.
- Dr. Slater responded the Committee will work on that
- Mr. MacCallum directed Mr. Sprankle to develop letters for the Commission's review relative to Atlantic herring management plan changes with the ASMFC and the NEFMC.
- Mr. MacCallum stated next meeting the Official agency membership (Directors) of the Commission must be present to vote on Officer positions. He intended to speak with the CRASC (agency Directors)
- The group discussed the best way to handle the CRASC checking account situation. It was decided by motion (Geiger), seconded (Gephart) and approved by all in vote that Ken Sprankle shall obtain the right to sign checks and the dated members of the account be removed.
- Discussion followed on the next meeting date. Dr. Geiger mentioned perhaps associated with the Fish Passage Symposium. Mr. MacCallum noted that he had conflicts with his other council meetings. It was finally decided that the end of September would be best at this time.
- Dr. Geiger requested Mr. Sprankle to determine the dates of the larger inter-agency meetings that the Directors would likely have conflicts with in that month and set up a doodle poll to determine the best date.
- Dr. Geiger commented that it would be important for Mr. MacCallum to personally contact each of the Directors on the next meeting date.
- Mr. MacCallum asked for any other comments, hearing none a motion to adjourn was made by Dr. Geiger, seconded by Mr. Decker and passed.

Meeting adjourned at 12:25 p.m.

January 11, 2011

ATTENDANCE

Mary Colligan  
Richard Shelton  
Scott Decker  
Jaime Geiger  
Wayne MacCallum  
Ken Sprankle  
Eric Palmer  
Peter Basta  
Stephen Gephard  
Robert A. Johnes  
Caleb Slater  
Michael Bailey  
Jay McMenemy  
Karl Meyer  
Bill Archambault  
Bruce Williams  
Ted Castro- Santos  
Brian Hanson  
Bob Stira  
Jim Carroll  
Andrea Donlon  
Bill Lellis  
Matt Carpenter  
Dave Tilton  
Darleen Cutting

NMFS  
NH Public Sector  
NHFGD (Alt.)  
USFWS  
MADFW  
USFWS/CTRC  
VTFW  
VT Public Sector  
CTDEP  
CT Public Sector  
MADFW  
USFWS  
VTFW  
Journalist  
USFWS  
USACOE  
USGS/CONTE  
Normandeau Assoc.  
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